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10/698,812	10/30/2003	Michele Covell	200313228-1	2456

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EXAMINER
HOANG, HIEU T

ART UNIT	PAPER NUMBER
2452	

NOTIFICATION DATE	DELIVERY MODE
03/27/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td></tr>
<tr><td>10/698,812</td><td>COVELL ET AL.</td></tr>
<tr><td></td><td>Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td></td><td>HIEU T. HOANG</td><td>2452</td><td></td></tr>
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-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 January 2009</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-5,7-15,17-35 and 37-44</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-5, 7-15, 17-35, 37-44</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to the communication filed on 01/26/2009.

2.   Claims 6, 16, 36 are cancelled.

3.   Claims 1-5, 7-15, 17-35, 37-44 are pending.

Response to Amendment

4.   The objection of the specification has been withdrawn due to the amendment.

5.   The 35 U.S.C. 101 rejection of claims 2 and 15-23 has been withdrawn due to

the amendment.

Response to Arguments

6.   Applicant's arguments have been fully considered but found unpersuasive.

Applicant primarily argues that the prior art does not teach receiving service provider

information from a plurality of service providers at a service location manager and

maintaining data at said service location manager. The examiner respectfully disagrees.

Applicant seems to agree that the service broker in Pranata accesses a directory

service (the lookup service) that includes a list of transcoders (read as service

providers); and the service broker makes a selection of an appropriate transcoder

(Remarks, page 22, par. 3). There is no requirement in Pranata that the service broker

and the lookup service have to be distinct. Therefore, if reading a service location

manager as a combination of two software entities—the service broker and the lookup

service (a service broker including a lookup service), the claimed limitations are met.

Furthermore, looking at fig. 5.9 and 5.11 describing time diagrams for requesting

multimedia stream service, the only relationship of a service broker and a lookup

service is to pass on requests to find transcoders and receives transcoder addresses. It

would have been obvious for one skilled in the art to implement both a lookup service

and a service broker as one network entity or system (one entity doing both lookup

service and service broker) which is applicable for a small network of a few transcoders

and clients (Pranata, 4.3.5).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious
> at the time the invention was made to a person having ordinary skill in the art to which said
> subject matter pertains. Patentability shall not be negatived by the manner in which the invention
> was made.

8.   Claims 1-7, 12-17, 22-27, 35-37, 42-44 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Pranata (Development of Network Service Infrastructure For

Transcoding Multimedia Streams), in view of Smith et al. (US 6,970,602, hereafter

Smith)

9.   For claim 1, Pranata discloses a method of selecting a media service provider

based on static resource information, said method comprising:

- receiving service provider information from a plurality of service providers at a service location manager (4.2.3, fig. 4.5, combination of lookup service and service broker is read as a service location manager for receiving providers' information), said service provider information comprising indications of initiation and termination of service sessions involving said plurality of service providers (fig. 5-3, page 32, par. 2, list B of transcoders that have initiated and cached sessions of source media);

- maintaining data at said service location manager, said data comprising identification of said plurality of service providers (4.2.3, storing information about transcoders, fig. 5.3, lists of IDs of transcoders), static service provider information and static network information, wherein said data is based at least in part on said service provider information (fig. 5-3, list A, page 32, par. 1, page 33 par. 1, selecting a transcoder or service provider based on static transcoders' information, e.g. supported transcoding formats of the transcoders, 5.1.2, par. 3, selecting a transcoder based on static network information such as available bandwidth, delay, jitter);

- identifying a type of service that needs to be performed on an item of content requested by a client device and supplied by a content source before a service result is provided to a client device, said identifying is performed at said service location manager (5.2.3, client request for a media stream from a server as in fig. 5.8, section 6.4, client, a client requesting for a stream from a content provider at the URL) (fig. 5.8, 5.9 and description on page 40, e.g. steps 4-5, find a

corresponding transcoder for transcoding the requested media stream before
sending the stream to the client; the transcoder identified by a service broker and
a service lookup module), and said type of service comprises processing said
item of content (page 40, e.g. steps 4-5, find a corresponding transcoder for
transcoding the requested media stream)

- wherein said item of content is identified during a session with a client device
  (6.4, client-content source streaming session); and

- selecting a service provider from said plurality of service providers (4.3.4, fig. 5.4
  select a most appropriate transcoder) based on said data maintained at said
  service location manager and said selecting performed at said service location
  manager (fig. 5-3, list A, page 32, par. 1, page 33 par. 1, selecting a transcoder
  or service provider based on static transcoder's information, e.g. supported
  transcoding formats of the transcoders, 5.1.2, par. 3, selecting a transcoder
  based on static network information such as available bandwidth, delay, jitter;
  selection based on cached sessions), said selecting of a service provider further
  based on service session information if said service session information has
  been received (fig. 5-3, list B, page 32 par. 2, selecting transcoders based on
  whether or not the transcoders have received and cached source media or
  service session information); and further based on said identifying said type of
  service (fig. 5.8, 5.9 and description on page 40, e.g. steps 4-5, find a
  corresponding transcoder for transcoding the requested media stream before
  sending the stream to the client)

- providing transfer information for transferring said session to said service provider of said type of service (fig. 5.9, transcoder requests stream session to server and receives the stream), wherein said service provider of said type of service performs said type of service on said item of content if said type of service is needed (fig. 5-8, page 40 steps 4, 5, 10 and 11, task of transcoding the requested stream is assigned to the selected transcoder, the transcoder then transcodes the stream received from the server then transmits to the client).

Pranata does not disclose said type of service is selected from a group of services consisting of processing said item of content and providing an analysis of said item of content;

However, Smith discloses a list of services consisting of processing said item of content and providing an analysis of said item of content (fig. 1, content analysis module 109 and content transcoder module 107, col. 2 lines 57-67, content analysis for analyzing the features, purposes and relevancies of the multimedia objects)

It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Pranata and Smith to select a service including content analysis and content processing to be performed on the content to provide more available services and functionalities to the system of Pranata.

10.   For claim 2, Pranata discloses an electronic device for providing content to a client device, said electronic device comprising:

- a memory device comprising computer executable instructions stored therein
  (7.1.1, computer hardware with memory);

- a processor that performs a selection of a service provider from among a plurality
  of service providers that is capable of performing a needed type of service on an
  item of content requested by a client device and supplied by a content source
  (fig. 5-8, section 6.4, or fig. 5-10, page 43, client, a client requesting for a stream
  from a content provider at the URL, a corresponding transcoder for transcoding
  that stream will be located by a broker and a service lookup module); said
  selection based on data maintained at said electronic device, said data
  comprising identification of said plurality of service providers, static service
  provider information and static network information (fig. 5-3, list A, page 32, par.
  1, page 33 par. 1, selecting a transcoder or service provider based on static
  transcoder's information, e.g. supported transcoding formats of the transcoders,
  5.1.2, par. 3, selecting a transcoder based on static network information such as
  available bandwidth, delay, jitter); wherein said data is based at least in part on
  service provider information received from said plurality of service providers, said
  service provider information comprising indications of initiation and termination of
  service sessions involving said plurality of service providers (fig. 5-3, page 32,
  par. 2, list B of transcoders that have initiated and cached sessions of source
  media),

- and said type of service comprises processing said item of content (page 40, e.g. steps 4-5, find a corresponding transcoder for transcoding the requested media stream)

- said item of content and type of service to be performed on said item of content are identified during a session with said client device (5.2.3, session of client requesting for a media stream from a server as in fig. 5.8, section 6.4, client, session of a client requesting for a stream from a content provider at the URL, page 68 last par., client-content source session for receiving the stream content), wherein said type of service is identified before a service result is provided to said client device (fig. 5-8, section 6.4, or fig. 5-10, page 40 steps 4-5 and 10-11, a transcoder is identified for transcoding stream received from server then transmitting it to client);

- said processor further selecting said service provider of said type of service based on service session information if said service session information has been received (fig. 5-3, list B, page 32 par. 2, selecting transcoders based on whether or not the transcoders have received and cached source media or service session information).

Pranata does not disclose said type of service is selected from a group of services consisting of processing said item of content and providing an analysis of said item of content;

However, Smith discloses a list of services consisting of processing said item of content and providing an analysis of said item of content (fig. 1, content analysis module

109 and content transcoder module 107, col. 2 lines 57-67, content analysis for

analyzing the features, purposes and relevancies of the multimedia objects)

It would have been obvious for one skilled in the art at the time of the invention to

combine the teachings of Pranata and Smith to select a service including content

analysis and content processing to be performed on the content to provide more

available services and functionalities to the system of Pranata.

11.   For claims 3 and 4, the claims are rejected for the same rationale in claim 1.

12.   For claim 5, the claim is rejected for the same rationale as in claim 1. Pranata-

Smith further discloses that the item of content is an item of streaming content (Pranata,

title, multimedia streams)

13.   For claims 25 and 35, the claims are rejected for the same rationale in claim 5.

14.   For claim 15, the claim is rejected for the same rationale in claim 2.

15.   For claim 26, Pranata-Smith further discloses said static service provider and

network information is maintained by a service location manager (Pranata, fig. 5-8, 5-

10, fig. 5-3, list A, page 32, par. 1, page 33 par. 1, 5.1.2, par. 3, service broker is a

service location manager that is linked to lookup service and transcoders--service

providers, a service broker uses transcoders' information such as supported transcoding

formats and network information to find a most appropriate transcoder).

16.   For claims 7, 17, 27 and 37, Pranata-Smith further discloses said static service

provider and network information comprises information concerning computational and

memory resources, connectivity and expected bandwidth and latency between servers

(Pranata, 5.1.2, network requirement), client and content addresses (Pranata, 6.2.1,

6.2.1.2, address), session dispatch history (Pranata, session cached or not using client

and content addresses), network proximity (Pranata, 6.2.3, page 64 last par., fig. 6-4,

location) and the identity of special purpose hardware (Pranata, 5.1.2, hardware

requirement).

17.   For claims 12, 22, and 42, Pranata does not disclose said streaming content is

serviced and delivered to a client device as it is received. However, Smith discloses the

same (col. 3 lines 65-66, col. 4 lines 63-66, cached content is received and delivered as

is to clients). It would have been obvious for one skilled in the art at the time of the

invention to combine the teachings of Smith and Pranata to deliver cached content as is

to save computing resources.

18.   For claims 13, 14, 23, 24, 43 and 44, Pranata does not disclose non streamed

content is generated from said streaming content by said service provider; and said

streaming content is serviced by said service provider and delivered to a client device
as a non streamed file.

However, Smith discloses analyzing streaming content to generate a non-stream
content for a client (abstract, col. 4 lines 39-45, speech to text converting)

It would have been obvious for one skilled in the art at the time of the invention to
combine the teachings of Pranata and Smith to generate and deliver to the clients non-
stream content from stream content to so that clients which can only receive non-stream
content can use the service, and further reduce networking cost of delivering content.

19.   Claims 9-11, 19-21, 24, 29-34 and 39-41 are rejected under 35 U.S.C. 103(a) as
being unpatentable over Pranata, Smith, in view of Ma et al. (Content Services Network:
The Architecture and Protocols, hereafter Ma, 2001, cited in IDS).

20.   For claims 9, 19, 29 and 39, Pranata-Smith does not disclose said service
session information comprises service session initiation and termination information.
However, Ma discloses using a predistribution service wherein result of previous
request and response for a service (session initiation and termination) is cached for
reuse (section 4, par. 6, 4.1, par. 3, fig. 3, steps 1-5, searching for cache hit at the
caching proxy)

21.   For claims 10, 20, 30 and 40, Pranata-Smith does not disclose said initiation and
termination information provides information regarding the computational resources

used in previous sessions. However, Ma discloses computational resources used in a
session (table 1, resources, section 2 par. 1, computational resources to process
content in a previous session, section 4 par. 6). It would have been obvious for one
skilled in the art at the time of the invention to combine the teachings of Pranata, Smith
and Ma to cache session information including computational resources to efficiently
cache retrieve content.

22.   For claims 11, 21, 31 and 41, Pranata-Smith does not disclose said session
dispatch history comprises information concerning content length. However, Ma
discloses caching previous session including time for expiring cached content (fig. 3,
steps 1 and 5, 4.1 par. 3, expiration time of content cached). It would have been
obvious for one skilled in the art at the time of the invention to combine the teachings of
Pranata, Smith and Ma to store history of session including content length time to
efficiently cache retrieve content.

23.   Claims 24 is rejected for the same rational as in claim 14.

24.   Claims 32-34 are rejected for the same rational as in claims 12-14 respectively.

25.   Claims 8, 18, 28 and 38 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Pranata, Smith, in view of Walter et al. (US 7,277,431, hereafter
Walter).

26.   For claims 8, 18, 28 and 38, Pranata-Smith does not disclose said special

purpose hardware comprises compression hardware. However, Walter discloses the

same (abstract, encryption and compression hardware for traffic that needs to be

encrypted and/or compressed)

It would have been obvious for one skilled in the art at the time of the invention to

combine the teachings of Pranata-Smith and Walter to further identify a service for a

content based on security requirements to provide services with more security.

Conclusion

27.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

28.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-

1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m.,

EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HH

/Kenny S Lin/

Primary Examiner, Art Unit 2452